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Innovative Teaching Methods in Higher Education in Pakistani Universities: An Advanced Training Program for University Teachers at ARID University, Punjab Pakistan

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Introduction

With the passage of time, needs, intentions and priorities, especially of youngsters, change. This also effects their learning. That is why innovation in teaching methods is necessary. Adapting to new needs over time is very important for the effective learning of students. To ensure constant innovation in teaching methods it is essential to evaluate the teaching and learning process in able to come to know about the deficiencies in these processes. This kind of evaluation and innovation is easy and in developed countries happens naturally over time. However, how does this kind of teaching and learning evaluation and innovation happen, and how is it effective in the education system of developing countries, such as South Asian countries with big population, serious socioeconomic issues and overfilled school classrooms?

Standard teaching qualifications and advanced training in the evaluation of teaching and learning process of school teachers, future school teachers who are studying teaching education at universities, as well as the lecturers of these future school teachers, play a key role in being able to evaluate

one's own teaching method and, student's learning outcomes. With this a teacher or university lecturer gains concrete knowledge of the necessary innovation needed in his teaching methods.

Review

Teaching methods are a vehicle in the teaching process in use of a term of methods that can help students and teachers in order to achieve a common goal and to complete a common task of teaching. Teaching methods can be a specific environment; teachers and students take a variety of means to achieve the common goal of teaching then take to facilitate the completion of teaching tasks. Teaching method should not play assess the teaching effectiveness, but also improve the overall quality of teachers and students (Cheng & Jiang 2009).

Teaching and learning are very closely related with each other. Teaching plays a vital role in learning of students, which can be measured by students' learning outcomes. These outcomes can be effected negatively and can also be effected positively. Effectiveness is best estimated in relation to teacher's own goals of teaching. Thus what counts as effective in one context may not be so in another. A beautiful polished lecture which provides the solution to a problem may be considered effective if the goal was merely conveying information. If the goal was to stimulate students to develop the solution then this lecture may be regarded as ineffective. However, poor teaching has also been considered as good teaching, because it forces students to study more intensively (Brown & Aktins 2005). But the negative effects of poor teaching are more relevant by far, as it reduces the motivation, increases negative attitudes to learning and yields lower achievement. There are consistently high correlations between students' ratings of the "amount learned" in the course and their overall ratings of the teacher and the course. Those who felt having learned more placed their teachers in higher ratings (Cohen 1981; Theall & Franklin 2001; Uttl et al. 2016; Centra 1993). Even if this kind of self-reporting provides only weak empirical evidence, it remains obvious that without defined and evaluated learning outcomes teaching remains just talking (Angelo 1993).

A lot of research clarifies that the students' learning and teacher's teaching are although effected positively or negatively through their socio economic condition, somehow it can be enhanced by presentation of content and skills in teaching. The literature also indicates, what should not be done in classrooms (Balzar & Kraft 2017). However, there is not any standard book on teaching methods to suggest the best skills and content, which can be taught. Mostly students are not experts to judge if the

teaching method selected by an academic is the best teaching method or just a normal method or the comfortable method for teacher.

> Research indicates that students are the most qualified sources to report on the extent to which the learning experience was productive, informative, satisfying, or worthwhile. While opinions on these matters are not direct measures of instructor or course effectiveness, they are legitimate indicators of student satisfaction, and there is substantial research linking student satisfaction to effective teaching. (Doyle, n.d; Theall & Franklin 2001; Ramani 2016)

While David et al. (2017) said, undergraduate teaching and learning environments can be encapsulated through constructive alignment, congruence and coherence and the 'inner logic' of the subject and its pedagogy.

Furthermore the analysis of several studies shows a relationship between student ratings and student learning. Doyle (n.d.) quoted Ory: 'The use of students' ratings for evaluating teacher effectiveness is the single most researched issue in all of higher education. Over 2000 articles and books have been written on this topic over the past 70 years' (Mishra et al. 2013). Research on student evaluation of teaching methods concludes that student ratings tend to be reliable, valid, relatively unbiased and useful (Murray 1994 in Ramani 2016). Most universities embrace a process by which students provide anonymous feedback at the end of each course they complete. These ratings of instructor effectiveness have been a hot topic since they were first employed in mid-1920's (Chang 2001) and they create an enormous challenge for nearly every institution that uses them (Hoyt & Pallett 1999).

Over the years student evaluation of instructors has changed significantly especially in the areas of the purpose and methodology. They have transformed from being primarily used to assist students in the selection of courses, to helping faculty members in developing professionalism and improve their teaching skills, to assist administrators with respect to personnel decisions (Ory 2000). Today, student ratings of instruction are widely used for the purpose of making personnel decisions and faculty development recommendations (Scriven 1995). For administrators, the information derived from ratings aids them in making both summative and formative judgments dealing with faculty retention, tenure, and promotion, hiring, selecting faculty for teaching awards and honours, and in assigning teachers to courses (Ramani 2016; Franklin 2001; Kulik 2001). Braskamp (2000) suggests that instructors use the data formatively to develop and improve their teaching effectiveness. Student-ratings are in fact used in over ninety per cent of all colleges and universities in the United States and

represent the most frequently used strategy for evaluating instructors and courses (Sajjad n.d.).

There is much debate within the higher education community on how teaching or teaching effectiveness may be defined (Braskamp & Ory 1994). For instance Centra (1993: 42) defines effective teaching as 'that which produces beneficial and purposeful student learning through the use of appropriate procedures'. Braskamp and Ory, (1994: 40) include both, teaching and learning in their definition, defining effective teaching as the 'creation of situations in which appropriate learning occurs; shaping those situations is what successful teachers have learned to do effectively'. Many researchers have focused on whether or not students are legitimate judges of teaching effectiveness. Though caveats abound, the general sense is that students are both rational and reliable sources of evidence (Arreola 1995; Braskamp & Ory 1994; Pratt 1997).

While in class, students are exposed to all sorts of instructional experiences (lectures, instructional materials and aids, readings, exams). They are in effect experimental consumers—able to discern quality, relevance, usefulness, and instructor interaction with students (Montgomery n.d.). As consumer claims that students can judge what is taught and how it is taught (Sajjad n.d.; Al Jaber & Elayyan 2018). Yet Braskamp & Ory (1994) argue that students can only provide information with respect to teaching. However, Ory (2001: 12) sums it up best stating: 'unless they haven't been to class, as consumers they have a legitimate voice'. Theall (n.d.) mentioned that the students can answer questions about the quality of lectures and the value of readings and assignments, as well as questions about the clarity of the instructor's explanations. Students are certainly qualified to express their satisfaction or dissatisfaction with the experience. They have a right to express their opinions in any case, and no one else can report the extent to which the experience was useful, productive, informative, satisfying, or worthwhile (Ramani 2016).

Cooperation

Because evaluation in an educational context is an estimation, success and impact control of teaching-learning processes, and with that the fit of the didactic-methodical concept, can also be evaluated (Siebert 2010). The kinds of methods which are used to instruct these future teachers should be known and examined, in order to find out their deficiencies and to therefore make the quality of the education of future teacher better. For this purpose a teacher training program on the evaluation of teaching learning process *Design of the Evaluation Process & Competence Assessment* has been

arranged with the cooperation of German Association for International Academic Advisory and Research Collaboration (GIBBZ) and the Division of Continuing Education, Home Economics and Women's Development of ARID University, Rawalpindi Pakistan.

This training program consists of two modules: Module 1: *The methodical capture: standard data collection procedures.* Module 2: *The review of processes and results* & d*esigning/creating an activity as part of the evaluation process in order to assess the effect and reflection of teaching*. The first module was executed in January 2019 at ARID University. Twenty participants were included in the execution, including an associate professor, an assistant professor, Lecturer, PhD students, and the institute director. During the first module the three parts of the evaluation process (data collection, data processing, data implementation) were introduced, but the main focus was on how to collect the data for the evaluation of the teaching learning process, while the second module was carried in march this year. The main focus of this module was the processing of collected data and design of an evaluation process. Dr. M. Ghulam chaired and executed this project, assisted by Ms. T. Pudelko.

The cooperation between German Association for international Academic Advising and Research Collaboration (Dr. Mustafa Ghulam) and Division of continuing Education, Home Economics and Women Development, Arid Agricultural University Rawalpindi (Dr. M. Imran Yousuf) has identified the need for a consistent analysis of teaching methods in higher Education to improve the teaching skills of university teachers in Pakistan. Based on the experience of lecturer and scholars at educational institute of ARID University, intercultural research expertise from German side has made fruitful to investigate the dissemination of existing teaching methods and to develop a new teaching training program for innovation in teaching methods, which would appropriate the needs and given potential of lecturers.

Findings

Data collection for evaluation process is very important. In the discussion of this part, how a data for the evaluation process can be collected as described in Figure 1, the challenges of a student and teacher has been often mentioned by the participants: The challenges faced by students (future teachers), their social background, and their expectations, the following was deduced: 80 to 90 per cent students come from social backgrounds which are characterised by lack of public schools, sub-standard educational standards, high levels of unemployment, child labour, lack of basic facilities, lack of proper nutrition, weak educational background, and

weak financial background, middle class families, joint and large family system (average of eight siblings). These students encountered two kinds of challenges, namely "Primary Challenges" and "Secondary Challenges".

Primary challenges

There are 4 types of primary challenges faced by a student:

- Family related
- Personal problems
- Problems related to the social environment
- Problems related to the educational institution

Family related

Firstly, most of the student teachers (80 per cent) faced family related challenges. These include poverty, dealing with the economics issues of parents, big families, gender, and number of siblings, parental attitude, parental educational background and home environment. Student teachers who belong to big families, particularly if the student is a girl, face extra challenges. Female students often have to convince their parents to allow them to go to university to get more education. Because most of the parents are conservative, they do not want to allow girls to study. This kind of behaviour however is related to the education of the parents. If the parents or just the father or mother is well educated, then they understand the importance of education and they are happy to allow their daughter to go to university for higher education. But most of the families are not highly educated and they are also conservative and the girls from these families have challenges to face in convincing their parents.

Personal problems

The second type of challenge is related to the student & teacher's own personality. Personality traits are however influenced by the first category of challenges (family related challenges). These type of primary challenges include bad company, mental development, lack of interest in study, lack of awareness about the benefits of education, lack of confidence, self-respect and stress management. Lack of confidence can be related to family and economic issues, which also has an effect on mental development. This can cause concentration to be diverted away from education to other activities. A student may not have much awareness about the future benefits of education. This problem is caused by a lack of counselling at school or university levels.

Problems related to the social environment

Social environmental challenges, the third category, include the media, lack of proper environment, lack of appreciation, social adjustment and social acceptance. Due to many issues like caste, religion and reputation of the family, the middle or lower class students are not appreciated based on their achievements, because society does not accept them. Most of the society has an unrealistic conception about social environment.

Problems related to the educational institution

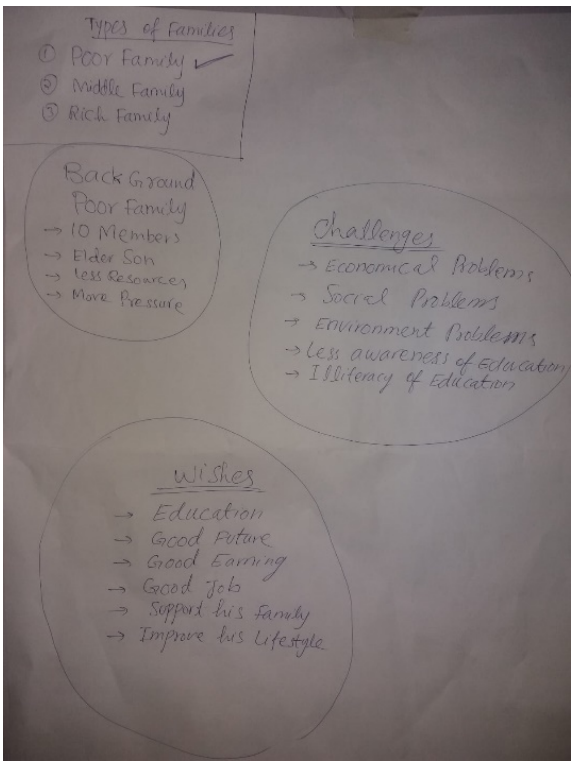
The fourth type of challenges is related to educational institutes, where issues such as lack of competent teachers, teacher's personalities, fear of teachers and school facilities play a role. Too many students, lots of time spent marking papers, lack of time, non-educated parents, poor family (therefore having to work part time), involvement of private academies, bad students, many hours of classes, poor students, students who have been badly prepared in earlier classes, no balance in earlier Classes, lack of proper training, lack of practical implementation, lack of facilities (chemicals and apparatus) in laboratories, preferential treatments for heads of departments, no structure for lesson planning with respect to the individual subjects, truancy of students, lack of transportation, and big classes are factors which tend to make teachers incompetent, or at least they appear as incompetent. Furthermore, the lack of facilities, which educational institutes need, are also a hurdle for effective education.

Secondary challenges

The secondary challenges faced by students, especially female students, are often cultural challenges. What will the society say, when a girl goes to university and studies with boys? If the university is far away from the home town in another city then the societal acceptance is even more challenging. Transportation issues can also cause problems. When there is bad transportation, students and teachers both have to wait a long time to get some transportation to and from school. Traffic is also a problem and can cause delays, making in necessary to leave very early in the morning in order to reach university punctually. Big populations combined with a lack of enough educational institutes and the lack of teachers is also challenging. Big classes can be a hurdle to proper learning. A lack of communication between educational institutes and parents of students is also problematic. Another problem is the societal status of teachers and how a degree in education is viewed. No one wants to be teacher likely, because the profession is not highly respected, the salaries are poor, teachers are

expected to teach large classes and have a high work. Furthermore, most of the curriculum in English, so that language becomes an issue, because there is no chance of studying in other languages.

Figure 1: Charts, an activity during training



Source: Photo taken by the author.

Text:

'Types of Families

1. Poor Family
2. Middle Family
3. Rich Family

Background Poor Family

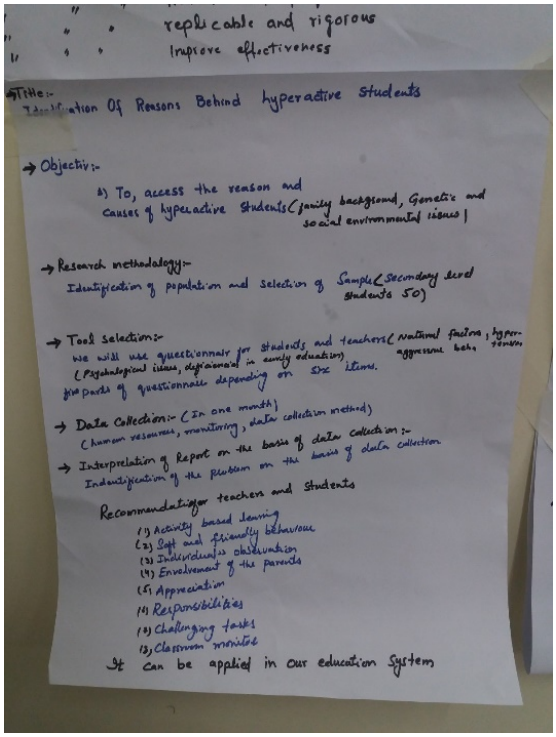
- 10 Members
- Elder Son
- Less Resources
- More Pressure

Challenges

- Economical Problems
- Social Problems
- Environment Problems
- Less awareness of Education
- Illiteracy of Education

Wishes

- Education
- Good Future
- Good Earning
- Good Job
- Support his Family
- Improve his Lifestyle'



Source: Photo taken by the author.

Text

- 'Title:-

Identification of Reasons Behind hyperactive Students

- Objective:-

1. To, access the reason and causes of hyperactive students (Family background, Genetic and social environment issues)

- Research Methodology:-
  Identification of Population and selection of sample (secondary level students 50)

- Tool Selection:-

We will use questionnaire for students and teachers (Natural factors, hypertension aggressive behave- psychological issues, deficiencies in early education)
Five parts of questionnaire depending on six items.

- Data Collection:- (in one month)
  (Human resources, monitoring, data collection method)

- Interpretation of Report on the basis of data collection:-
  Identification of the Problem on the basis of data collection

- Recommendation for teachers and students
  1. Activity based learning
  2. Soft and friendly behaviour
  3. Individuals observation
  4. Environment of the parents
  5. Appreciation
  6. Responsibilities
  7. Challenging tasks
  8. Classroom monitor

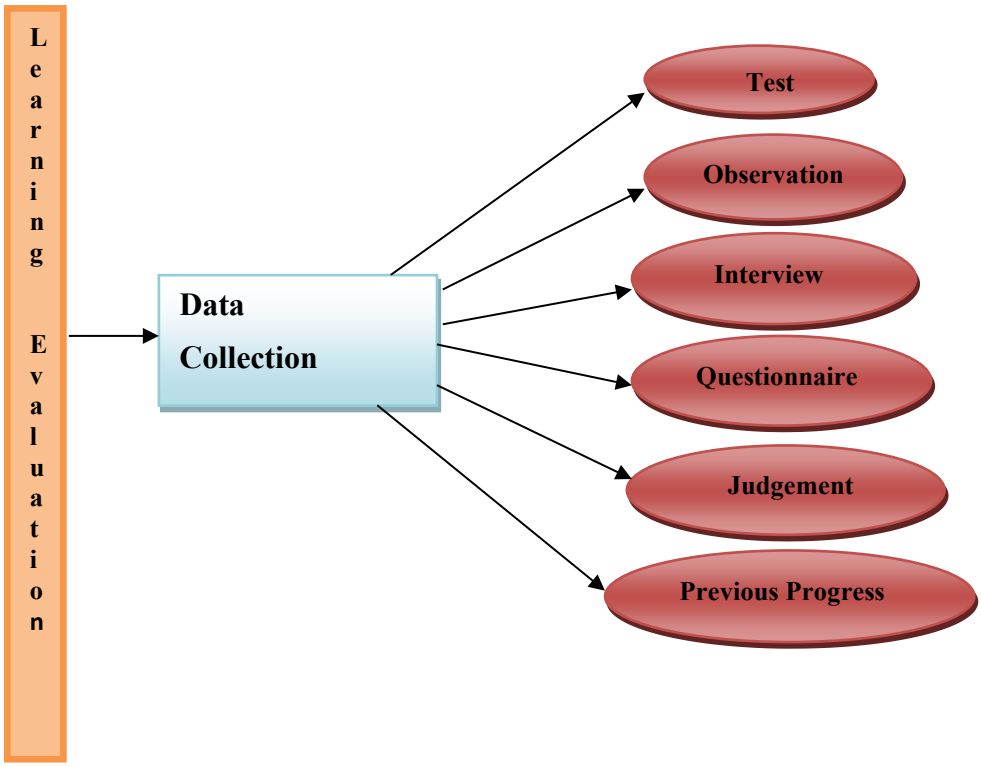
It can be applied in our education system.'

Student and teacher's expectations and wishes include: proper reward for work, maintaining a good blend between curricular, co-curricular and extra-curricular activities, success in life, popularity, and a stress-free and peaceful life, remaining helpful to others, and having high self-esteem. They also want to be healthy, want to get good jobs, earn a lot of money, be appreciated by others, get a good education, have a good future, support their families and improve their lifestyle. The right to education is also important as well as the fulfilment of basic needs, having a good support structure from family, achieving an improved social status, the achievement of good grades, having transport facilities, being appreciated, being a productive citizen, maintaining good relationships, having good communi-cation skills and confidence are important. Students also value the escape from the burden of study, learning through fun, and the use of social media (Ghulam 2014). But due to political, social and family issues their wishes and expectations are not fulfilled. This is also hurdle to creating and providing a positive learning environment.

All these aspects, facts and challenges are on mind of a student teacher of education, who will be a future teacher. These students fight with over-coming these challenges and studying (learning) how to teach at the same time and this can have a negative effect on their education. This being said,

there is a risk that their education will not lead to the production of well-trained and devoted teachers.

Figure 2: Learning evaluation



Source: designed by the author.

Basic necessaries

According to participants due to these above mentioned socio economic problems it is hard to conduct an effective teaching learning process. Therefore we need to design an innovation in the teaching methods with the consideration of the social problems of the teachers and students as described and discussed in Figure 2. For that there should be arranged a research or survey project by government. Then, according of the findings of this survey, a programme training teachers should be structured which would be more appropriate to the learning status and needs of the teachers and students. Because the teaching methods in higher education are accelerated and need to be transformed with the development of science and technology progress. The research on systemic teaching methods has attracted more attention not only in the field of educational research. The traditional teaching methods in Pakistan require innovation in order to meet competency-based learning goals, so it is necessary to reflect on that back-

ground if new teaching method are explored. Some of these factors will influence the way of teaching as meaningful as cultural traditions of learning and teaching that of course have been recognised by this project (teacher training programme) and that is why it is an ongoing topic for the cooperation. The analysis of above-mentioned programme for training teachers gave the current situation of teaching and learning in Pakistan and it put forward some practical suggestions.

This training program has contributed to the impact of teaching, on pedagogic and subject-specific teaching, on improving student learning in diverse settings at Pakistani institutes. It has contributed to several other principles on expert knowledge and expertise, forms of prior or concurrent learning, the active engagement of students, and teachers' feedback and quality from both sides. The conceptual framework for understanding how to capture 'congruence' between students' academic learning and teachers' ways of thinking and practicing has also drawn from this project.

The researchers argue that high-quality undergraduate learning can be encapsulated through approaches to learning, ways of studying and ways of thinking and practicing in the subject. According to Hannan (2001) a review of the literature shows that over the past half century there three interlocking themes could be identified, which have to some extent been overlapping in the history of innovation within institutions of higher education. These were: 'individual innovation' (drawing on the ideas of enthusiasts); 'guided innovation' (often supported by institutional funds derived from national programs such as "Enterprise in Higher Education" and somewhat loosely connected to guiding notions about improving teaching and learning); and, 'directed innovation' (driven by institutional imperatives often aimed at maximising returns on investment in new technologies or promoting more student-centred learning partly for reasons of efficiency). We are now in the age of 'directed innovation', with its associated problems of management, such as:

- ☐ How are university teachers to be convinced of the need to change?
- ☐ How are the directions of change to be decided and what part do practitioners play in this?
- ☐ What happens to the individual innovators whose ideas don't fit?
- ☐ When the senior management of a university decides on a lifelong learning policy or a teaching and learning strategy that is more than a form of words to release targeted funds, how does it get its teaching staff to put it into practice?

To answer such questions we need to know more about the motivations of those who introduce new methods of teaching and learning and those who

do not prefer to choose this method. For example in Pakistan the Learning Innovation Division (LID) – Higher Education Commission offers a project named National Academy of Higher Education (NAHE) and further the Professional Competency Enhancement Program for Teachers (PCEPT). These programs have been offered for the whole faculty teachers throughout all the universities in the country to enhance teaching abilities and to professionalise teachers in higher education.

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